

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1, 3, 5–9, 11, 12, 19–21, 23–29 and 34–50 will be pending.

§103 Rejection of Claims 1, 3, and 19–21

In Section 3 of April 9, 2008 Office Action (“the Office Action”), claims 1, 3, and 19–21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Barone (U.S. Patent Publication No. 2005/0005303) and Kalluri (U.S. Patent No. 5,937,331) in view of Andrade (U.S. Patent Publication No. 2002/0059644), in further view of (ATVEF Specification v1.1 r26; hereinafter referred to as “the ATVEF Specification”) and in further view of Markel (U.S. Patent No. 6,791,579).

Independent claim 1 recites an interactive enabling system (for managing interactive program content associated with enhanced program content and interactive commercial content associated with commercial spots) including (paragraph numbers of the present publication have been added that disclose the below limitations):

- (a) an interactive enabling device [0040], [0052], [0062] coupled for receiving a broadcast stream [0044], [0049], said broadcast stream including the enhanced program content [0059] in series with the commercial spots, the broadcast stream further including program pre-triggers, interactive program triggers [0044], [0045], commercial pre-triggers, and interactive commercial triggers [0061] for retrieving the interactive program content and interactive commercial content [0067]; and
- (b) at least one interactive content server coupled for communicating with an interactive control application in the

interactive enabling device; [0043], [0048]

- (c) wherein the interactive enabling device executes the interactive control application to manage the retrieval of the interactive program and commercial content from the at least one interactive content server in response to the program and commercial pre-triggers and make available the interactive program and commercial content in response to the interactive program and commercial triggers, [0062], [0067]
- (d) wherein the interactive program and commercial content includes a plurality of segments, each segment including multiple pre-triggers, and each pre-trigger of the multiple pre-triggers for a segment corresponding to a particular type of communication link speed, [0067]
- (e) wherein the interactive enabling device is operable to respond to a commercial pre-trigger embedded in the enhanced program content and a program pre-trigger embedded in a commercial spot, [0062], [0067]
- (f) wherein the interactive control application includes a gatekeeper function for selectively retrieving interactive program and commercial content in response to recognized interactive program and commercial triggers, and [0043], [0044], [0046], [0052], [0063]
- (g) wherein the interactive enabling device is configured for receiving and responding to the program pre-triggers, the interactive program triggers, the commercial pre-triggers, and the interactive commercial triggers embedded in the broadcast stream to ensure that the interactive program and commercial content do not overlap and interfere with each other. [0062], [0063]

(Limitation numbers added for easy reference)

Regarding limitations (a), (b), (c), and (e), the Office Action indicates that Barone discloses these limitations with the exception of program pre-triggers and interactive program triggers in limitation (a). Applicants respectfully disagree with the Examiner's representation of Barone as disclosing the above indicated limitations. For example, the Examiner cites Barone,

[0014], lines 1-6 (“Briefly, the present invention is directed to a system and method for preloading interactive content before it is to be displayed, thereby avoiding any unwanted delays due to download times. According to the invention, ITV data is embedded into the TV signal at some predetermined time before the enhanceable video segment will be broadcast.”) and [0026], lines 1-8 (“In particular, the system 30 according to one embodiment of the present invention is designed to insert a URL link, trigger, or any other suitable ITV data (hereinafter referred to as “ITV data”) in the program being broadcast, which is received by the ITV receiver 20. The ITV data is inserted into a selected frame of the TV signal which will be broadcast a selected amount of time before a corresponding TV segment will be broadcast.”) as disclosing commercial pre-triggers; and Barone, [0050], lines 6-8 (“Alternatively, an embedded command can be inserted into the TV signal which instructs ITV receiver 20 to begin displaying the downloaded content.”) as disclosing interactive commercial triggers. It is clear from these passages that Barone merely discloses triggers not commercial pre-triggers and interactive commercial triggers.

In the Background Section of the Specification, it was stated that “[w]hile the use of triggers to download interactive content from remote sites, or provide interactive content themselves, is known in the art, any control over such interactivity has been limited to discrete periods of time such as program times or commercial breaks, but not both.” *Publication, Paragraph [0013]*. That is, triggers for interactive program content generally occur in program segments of a broadcast stream, while triggers for interactive commercial content generally occur in segments of a broadcast stream devoted to a corresponding commercial spot. “Thus, efficiencies that could result from controlling and sharing the given time space, to the extent possible, could not be achieved. A need therefore exists to manage both interactive program content and interactive commercial content, and schedule and integrate interactive content from

multiple sources that may or may not be known in advance, without interference.” Publication, Paragraph [0013] (emphasis added).

Based on the above discussions, it cannot be maintained that Barone discloses limitations (a), (b), (c), and (e) of claim 1 with the exception of program pre-triggers and interactive program triggers in limitation (a).

Regarding limitation (f), the Office Action indicates that Andrade discloses this limitation. Applicants respectfully disagree with the Examiner’s representation of Andrade as disclosing the above indicated limitation. For example, the Examiner cites Andrade, [0026], lines 1-13 (“Network 102 can represent a network such as the Internet hosting the World Wide Web (WWW). The WWW allows for a uniform way of accessing information on the Internet using HTML compliant browsers. Network 102 can be other type of networks such as, for example, a local area network (LAN) or a wide area network (WAN). Network 102 can also represent wired or wireless networks. Although one web server 102 is shown in FIG. 1A, any number of web servers can be connected to network 102. Furthermore, other types of network devices can also be connected to network 102, which can provide content for TV 104, such as, for example, a network router, bridge, gateway, or other like network devices.”) as disclosing a gatekeeper function.

It appears the Examiner is equating the “gateway” with the gatekeeper function disclosed in limitation (f). In paragraph [0043] of the present publication, a gatekeeper function is defined as monitoring “subsequent triggers received from the broadcast stream and determin[ing] which triggers will be executed and which triggers will be ignored.” According to Webopedia, “gateway” is defined as a “node on a network that serves as an entrance to another network. In enterprises, the gateway is the computer that routes the traffic from a workstation to the outside

network that is serving the Web pages. In homes, the gateway is the ISP that connects the user to the internet.” Therefore, the two definitions are completely different.

Regarding limitation (d), the Office Action does not fully address the limitation as recited (i.e., “wherein the interactive program and commercial content includes a plurality of segments, each segment including multiple pre-triggers, and each pre-trigger of the multiple pre-triggers for a segment corresponding to a particular type of communication link speed”). Instead, the Office Action merely states that Markel discloses “pre-triggers for a segment corresponding to a particular type of communication link speed” (in Markel, figs. 1-8; col. 1, line 66 – col. 2, line 21; col. 3, line 36 – col. 4, line 22; col. 6, lines 8-62) because Markel teaches the “pre-fetching of enhancement information to accommodate access latencies. Latency is inherently dependent upon communication link speed”. However, limitation (d) of claim 1 specifically states that there are multiple pre-triggers in each segment, wherein each pre-trigger corresponds to a particular type of communication link speed. That is, assuming arguendo that Markel’s recitation of “pre-fetching of enhancement information to accommodate access latencies” equates to fetching a trigger corresponding to a communication link speed, Markel still does not teach or suggest limitation (d) of claim 1.

Regarding limitation (g), the Office Action states that the ATVEF Specification (in page 8, paragraphs 7 and 8; “[w]hen the new enhancement is being received at the same time as an existing enhancement is displayed, and the new enhancement delivers its first trigger, the client may have one of three behaviors: The client ignores the new enhancement trigger until the existing enhancement has completed.”) disclose this limitation. Again, the Examiner is not fully addressing limitation (g) in this case. Limitation (g) specifically states that “wherein the interactive enabling device is configured for receiving and responding to the program pre-

triggers, the interactive program triggers, the commercial pre-triggers, and the interactive commercial triggers embedded in the broadcast stream to ensure that the interactive program and commercial content do not overlap and interfere with each other.” Even assuming arguendo that “enhancement” in the ATVEF Specification equates to “trigger”, it cannot be maintained that the ATVEF Specification teaches or suggests the interactive enabling device is configured for receiving and responding to the program pre-triggers, the interactive program triggers, the commercial pre-triggers, and the interactive commercial triggers embedded in the broadcast stream to ensure that the interactive program and commercial content do not overlap and interfere with each other.” That is, considering the above discussion, it cannot be maintained that “[ignor[ing] the new enhancement trigger until the existing enhancement has completed” equates to “to ensure that the interactive program and commercial content do not overlap and interfere with each other.”

Based on the foregoing discussion, claim 1 should be allowable over Barone, Kalluri, Andrade, the ATVEF Specification, and Markel. Independent claim 19 includes the above-discussed relevant limitations for claim 1 in substantially similar form. Therefore, claim 19 should also be allowable over Barone, Kalluri, Andrade, and the ATVEF Specification. Since claims 3, 20, and 21 depend from one of independent claims 1 and 19, claims 3, 20, and 21 should also be allowable over Barone, Kalluri, Andrade, the ATVEF Specification, and Markel.

Accordingly, it is submitted that the rejection of claims 1, 3, and 19–21 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 5–7 and 23–25

In Section 4 of the Office Action, claims 5–7 and 23–25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Barone and Kalluri, in view of Andrade and the ATVEF Specification and Markel as applied to claims 1 and 19 above, and in further view of Zigmund (U.S. Patent No. 6,698,020; hereinafter referred to as Zigmund020).

Regarding claims 5 and 23, a further limitation is added which discloses that “the gatekeeper is configured to recognize the interactive program and commercial triggers based on agreements between broadcasters and program or commercial sponsors.” The Office Action cites Zigmund020, column 8, lines 55-64 (“A predetermined agreement between third party ad source 62 and programming source 66 may be used to ensure that actual triggering events are provided to the ad insertion device 60. In this case, both the third party ad source 62 and programming source 66 may benefit from the ability to specifically target viewers. In contrast, the use of implied triggers or other actual triggering events may be accompanied with unilateral insertion of selected advertisements into the video programming feed 52 on the part of the ad source 62.”) as disclosing this limitation. However, a close inspection of the cited passage in Zigmund020 reveals that Zigmund020 merely indicates that an agreement between third party ad source and programming source is used to ensure that actual triggering events are provided to the ad insertion device. Zigmund020 fails to teach or suggest a gatekeeper function where it recognizes the interactive program and commercial triggers based on that agreement.

Based on the foregoing discussion, claims 5 and 23 should be allowable over Barone, Kalluri, Andrade, the ATVEF Specification, Markel, and Zigmund020. Claims 6-7 and 24-25 recite a similar limitation as claims 5 and 23. Therefore claims 6-7 and 24-25 should also be allowable over Barone, Kalluri, Andrade, the ATVEF Specification, Markel, and Zigmund020.

Accordingly, it is submitted that the rejection of claims 5–7 and 23–25 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 8 and 26

In Section 5 of the Office Action, claims 8 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Barone and Kalluri in view of Andrade and the ATVEF Specification and Markel as applied to claims 1 and 19, and further in view of Zigmund (U.S. Patent No. 6,330,719; hereinafter referred to as Zigmund719).

Based on the foregoing discussion regarding claims 1 and 19, and since claims 8 and 26 depend from claims 1 and 19, respectively, claims 8 and 26 should be allowable over Barone, Kalluri, Andrade, the ATVEF Specification, and Markel. Zigmund719 is merely cited for disclosing a randomizer. Since Zigmund719 does not teach or suggest the limitations of claims 1 and 19, claims 8 and 16 should be allowable over Barone, Kalluri, Andrade, the ATVEF Specification, Markel, and Zigmund719.

Accordingly, it is submitted that the rejection of claims 8 and 26 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 9, 11, 27, 28, 34–42 and 45–47

In Section 6 of the Office Action, claims 9, 11, 27, 28, 34–42, and 45–47 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Barone and Kalluri and further in view of Markel.

Regarding claims 11 and 28, a further limitation is added which discloses that “wherein the interactive enabling device includes a list of approved pre-triggers; and wherein the interactive control application enables the retrieval of the interactive program and commercial content only if codes embedded in the interactive program pre-triggers and commercial pre-triggers match the codes in the list of approved pre-triggers”. The Office Action cites Markel, column 3, lines 52-57 (“Output of an enhanced streaming media file may comprise inserting trigger information into a video stream and providing an HTML/Javascript wrapper page that embeds a streaming media player and includes software code to interpret the trigger information, access enhancement information and render enhancements.”) and column 6, lines 44-47 (“One pre-fetch embodiment may employ a ‘pre-trigger’ that results in the enhancement information for an upcoming trigger to be accessed.”) as disclosing this limitation. However, although these passages of Markel disclose pre-trigger, they are silent about “a list of approved pre-triggers; and ... the interactive control application [which] enables the retrieval of the interactive program and commercial content only if codes embedded in the interactive program pre-triggers and commercial pre-triggers match the codes in the list of approved pre-triggers.”

Based on the foregoing discussion, claims 11 and 28 should be allowable over Barone, Kalluri, and Markel. Based on the foregoing discussion regarding claim 1, and since claims 9, 19, and 27 recited similar limitations as claim 1, claims 9, 19, and 27 should be allowable over Barone, Kalluri, and Markel. Further, since claims 34-42 and 45-47 depend from one of claims 1, 9, and 19, claims 34-42 and 45-47 should also be allowable over Barone, Kalluri, and Markel.

Accordingly, it is submitted that the rejection of claims 9, 11, 27, 28, 34-42, and 45-47 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 12, 29, 43, 44 and 48–50

In Section 7 of the Office Action, claims 12, 29, 43, 44 and 48–50 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Barone and Kalluri in view of Markel as applied to claims 9 and 27, and further in view of Zigmond719.

Based on the foregoing discussion regarding claims 9 and 27, and since claims 12, 29, 43, 44 and 48–50 depend from one of claims 9 and 27, claims 12, 29, 43, 44 and 48–50 should be allowable over Barone, Kalluri, Markel, and Zigmond719.

Accordingly, it is submitted that the rejection of claims 12, 29, 43, 44 and 48–50 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Conclusion

In view of the foregoing, applicants respectfully request reconsideration of claims 1, 3, 5–9, 11, 12, 19–21, 23–29 and 34–50 in view of the remarks and submit that all pending claims are presently in condition for allowance.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

Respectfully submitted,

Dated: July 9, 2008

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